



## **Laser Beam Welding in Vacuum** **Increase in Quality and Productivity**

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Founder and CEO

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# LaVa-X GmbH



- Solution provider for laser beam welding in vacuum
- Founded 04/2018
- Spin-Off of FH Aachen University of Applied Science
- 22 Employees / 18 Engineers
- Customer relations worldwide
- Different certification



Technology Park Herzogenrath (TPH)

# LaVa-X GmbH – Business Model



**YOUR SOLUTION PROVIDER FOR WELDING CHALLENGES!**

**Consulting**



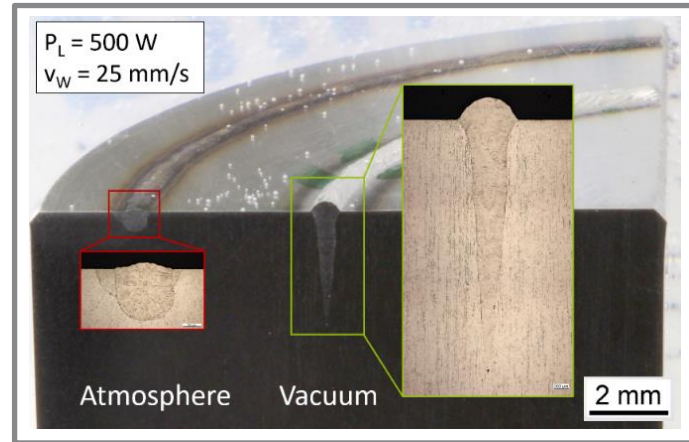
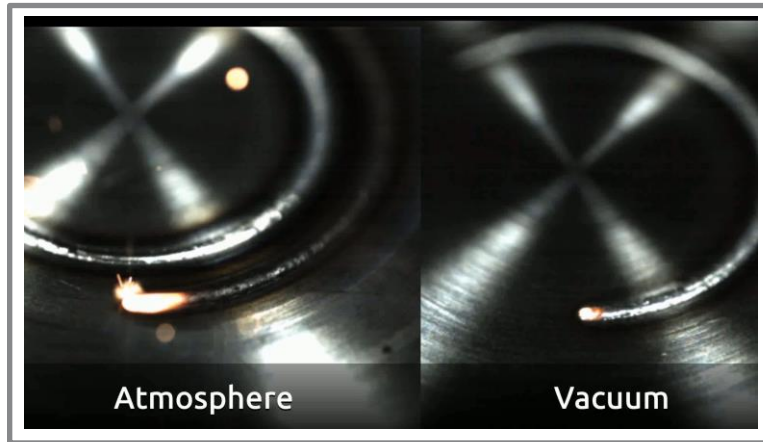
**Job-Shop**



**Equipment**



# LaVa-Welding



## Increase of quality

No pores or cracks in weld seams even in alloys difficult to weld.



## Increase of Productivity

Increase of penetration depth or reduction of laser power. No distortion.



## Avoidance of spatters

No adherend spatters, avoidance of vapour deposition and oxidation



## Economic and ecologic

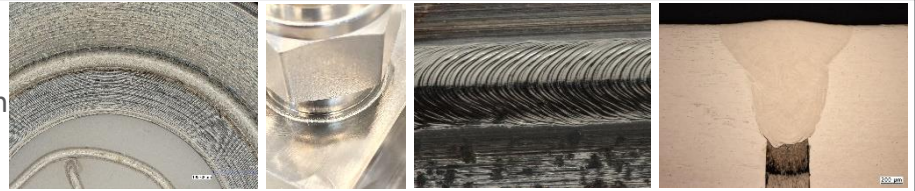
Use of low power laser sources. No compressed air and less shielding gas.

# Exemplary Fields of Application LaVa-Welding



## Sensor Industry

- No pores & component contamination
- Heat input reduced by up to 60 % / 500 W  $\cong$  3 mm depth
- Less welding distortion & spatter



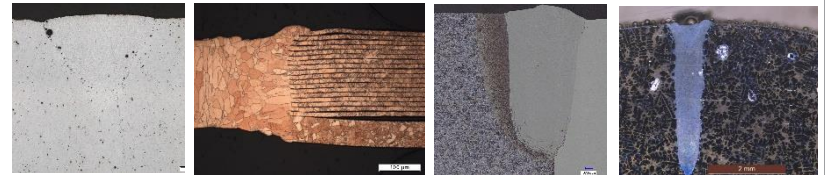
## Medical Industry

- Highest weld quality & a 100 % protection against oxidation
- Titanium, nitinol, gold, tantalum and chrome-nickel steel
- Good automation capability and high reproducibility



## Automotive

- Additive manufactured components
- Difficult weldable alloys
- Material combinations



# System Technology - LaVaCELL 450



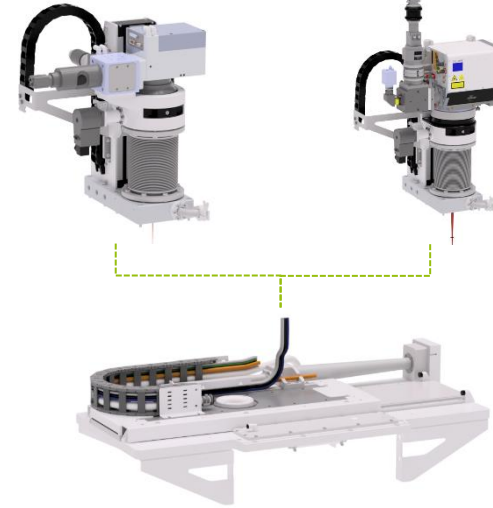


# LaVaCELL 450 - Modularity



Welding Head Typ R

Welding Head Typ T



X-Shift

Other optics available on request.



**Please Contact me for further questions!**

## Contact

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